5   **WHAT IS CLAIMED IS:**

1.   A method of traffic measurement collection in a telecommunication

network of interconnected nodes arranged to provide connection between network

resources, said method comprising:

comparing a message unit rate on a monitored communication linkset

10   at a network node to a predetermined overload threshold   ;

if said unit rate exceeds said overload threshold, identifying

communication linksets which provide traffic to said monitored communication

linkset; and

for each of said identified communication linksets, incrementing a

15   count element for each message unit received on respective identified

communication linksets.

2.   The method of Claim 1 further comprising comparing said message

unit rate on said monitored communication linkset to a predetermined underload

threshold and terminating traffic measurement collection if said underload threshold

20   exceeds said message unit rate.

3.   The method of Claim 2 further comprising providing an indicator

upon terminating of traffic measurement collection.

16

5   4.   The method of Claim 1 further comprising providing an indicator upon commencement of traffic measurement collection.

5.   The method of Claim 1 further comprising providing a traffic measurement report including said incremented count element for said respective identified communication linksets.

10   6.   The method of Claim 1 wherein said network node is a signaling transfer point.

7.   The method of Claim 1 further comprising limiting traffic measurement collection to a predetermined maximum period.

17

5   8.   A method for traffic measurement collection in a telecommunication

network of interconnected nodes, said method comprising:

comparing a message unit rate on each of a first set of monitored

communication linksets at a network node to a respective predetermined overload

threshold;

10   if said message unit rate on one of said monitored communication

linksets exceeds said overload threshold, identifying communication linksets which

are providing traffic to said one monitored communication linkset; and

for each of said identified communication linksets, incrementing a

count element for each message unit received on respective identified

15   communication linksets.

9.   The method of Claim 8 further comprising selecting a second set of

monitored communication linksets at said network node for traffic measurement

collection, comprising:

for each of said second set of monitored communication linksets,

20   examining outgoing message units for determining communication linksets

associated with said outgoing message units; and

18

5   for each of said determined communication linksets, incrementing a

count element for each message unit received on respective determined

communication linksets.

10.   The method of Claim 8 further comprising comparing said message

unit rate on one of said second set of monitored communication linksets to a

10   predetermined underload threshold and terminating traffic measurement collection

for said one monitored communication linkset if said underload threshold exceeds

said message unit rate of said one outgoing linkset.

11.   The method of Claim 8 further providing a traffic measurement report

including said incremented count element for each of said respective identified

15   communication linksets.

12.   The method of Claim 8 wherein said network node is a signaling

transfer point.

5   13.   An apparatus for traffic measurement collection in a telecommunication network of interconnected nodes, said apparatus comprising:

a monitor having an input for receiving message units for transmission on a monitored communication linkset of a network node and operable to determine a message unit rate for said monitored communication linkset, said

10   monitor operable for comparing said message unit rate to a predetermined overload threshold, said monitor further having an output for transmitting a first indicator for commencing said traffic measurement collection upon detecting that said message unit rate exceeds said overload threshold;

an examiner having an input coupled to said monitor for receiving

15   said first indicator, said examiner responsive to said first indicator for identifying communication linksets which provide traffic to said monitored communication linkset; and

a counter coupled to said examiner for receiving therefrom information indicative of said identified communication linksets, said counter

20   operable, for each respective identified communication linkset, to increment a count element for each message unit received.

5   14.   The apparatus of Claim 13, wherein said monitor is further operable

to compare said message unit rate to a predetermined underload threshold and

transmit a second indicator for terminating said traffic measurement collection upon

detecting that said underload threshold exceeds said message unit rate.

          15.   The apparatus of Claim 13, wherein said network node is a signaling

10   transfer point.

          16.   The apparatus of Claim 13, wherein said network node comprises a

plurality of monitored communication linkset.

          17.   The apparatus of Claim 13, wherein said examiner includes an input

for permitting a user to direct said examiner to identify a communication linkset for

15   traffic measurement collection for any message unit rate.

5   18.   A telecommunication network with traffic measurement collection

capability comprising:

a plurality of interconnected network nodes, at least one of said

network nodes having a plurality of communication linksets coupled to other

network nodes; and

10   a traffic measurement device coupled to said one network node, said

traffic measurement device comprising:

a monitor having an input for receiving message units for

transmission on said plurality of communication linksets and operable to

determine a message unit rate for at least one of said communication linksets,

15   said monitor operable for comparing said message unit rate to a

predetermined overload threshold, said monitor further having an output for

transmitting a first indicator for commencing said traffic measurement

collection upon detecting that said message unit rate exceeds said overload

threshold;

20   an examiner having an input coupled to said monitor for receiving

said first indicator, said examiner responsive to said first indicator for

identifying incoming communication linksets which provide traffic to said

at least one communication linkset; and

5   a counter coupled to said examiner for receiving therefrom

information indicative of said identified communication linksets, said counter

operable, for each of said identified communication linksets, to increment a

count element for each message unit received.

19.   The telecommunication network of Claim 18, wherein said one

10   network node is a signaling transfer point.

20.   The telecommunication network of Claim 18, wherein said examiner

includes an input for permitting a user to direct said examiner to identify a

communication linkset for traffic measurement collection for any message unit rate.